[0086] The process **400** includes determining whether the dependencies have changed (block **404**). When the process **400** determines that no changes have occurred in the dependent attributes (e.g., the specified cells in the source string attribute **226** and/or the search string attribute **228**), the process continues to monitor the dependency tree for changes.

[0087] When the process **400** determines that a change has occurred in the dependent attributes (e.g., the specified cells in the source string and/or the search string), the process **400** then recomputes the function (i.e., evaluation statement) using the newest value of the changed dependent attribute (block **406**).

[0088] For example, if the "is the" text of cell B**1** of FIG. **5** changes to "first place", the output from the function call would recompute the function **222** of FIG. **8**A, which has a dependency on cells A**1** and B**1** of FIG. **5**. In the present example, the function **222** of FIG. **8**A, which outputs a value to cell C**1** of FIG. **5**, would be recomputed to output the result "team is the Foxes" instead of "Foxes". Similarly, if cell A**1** (e.g., the cell referenced in the source string attribute **226**A of FIG. **8**A) is updated, the function call would recompute the function **222** to update the value that is output to a cell (i.e., cell C**1**.) As may appreciated, the process **400** recomputes the function when the source string, the search string, or both change.

[0089] The specific embodiments described above have been shown by of example, and it should be understood that these embodiments may be susceptible to various modifications and alternative forms. It should be further understood that the claims are not intended to be limited to the particular forms disclosed, but rather to cover all modifications, equivalents, and alternatives falling within the spirt and scope of this disclosure. For example, while the discussion herein described a function with a first search attribute and a second modal attribute, any number and type of attributes may be processed using the techniques provided herein.

What is claimed is:

1. A tangible, non-transitory, machine-readable medium, comprising machine-readable instructions that, when executed by one or more processors, cause the one or more processors to:

receive, via a graphical user interface (GUI) of a spreadsheet application, a function call, the function call comprising:

a source string attribute, the source string attribute identifying a string;

a search string attribute, the search string attribute identifying a substring to be identified in the string;

perform a function associated with the function call, by:

searching for the substring in the string; and

returning a subset of the string proximate to a location of the substring in the string.

2. The machine-readable medium of claim **1**, wherein:

the function comprises a function to return text before the substring; and

the subset of the string that is returned comprises a portion of the string that is located before the substring in the string.

3. The machine-readable medium of claim **1**, wherein:

the function comprises a function to return text after the substring; and

the subset of the string that is returned comprises a portion of the string that is located after the substring in the string.

4. The machine-readable medium of claim **1**, wherein:

the function comprises a second search string attribute, the second search string attribute identifying a second substring to be identified in the string;

the function comprises a function to return text between the substring and the second substring; and

the subset of the string that is returned comprises a portion of the string that is located between the substring and the second substring in the string.

5. The machine-readable medium of claim **1**, wherein the source string attribute comprises a cell reference to a cell containing the string.

6. The machine-readable medium of claim **1**, wherein the source string attribute comprises the string.

7. The machine-readable medium of claim **1**, wherein the search string attribute comprises a cell reference to a cell containing the substring.

8. The machine-readable medium of claim **1**, wherein the search string attribute comprises the substring.

9. The machine-readable medium of claim **1**, comprising machine-readable instructions that, when executed by the one or more processors, cause the one or more processors to perform the function, by:

determining if a value identified with the source string attribute is a string value; and

converting the value to a string value when the source string attribute is not a string value.

10. The machine-readable medium of claim **9**, wherein determining the value comprises a currency, a date, a time, a number, or any combination thereof, and setting a textual representation of the value as the string value.

11. The machine-readable medium of claim **1**, comprising machine-readable instructions that, when executed by the one or more processors, cause the one or more processors to:

maintain a dependency tree identifying dependent cells for a cell in the GUI containing the function call, the dependent cells comprising cells referenced by the source string attribute, the search string attribute, or both; and

perform the function, by:

determining if the dependent cells have changed; and

recomputing a result of the function call when the dependent cells have changed.

12. The machine-readable medium of claim **1**, comprising machine-readable instructions that, when executed by the one or more processors, cause the one or more processors to output an error indication when the substring is not identified in the string.

13. A processor-implemented method for receiving a function call, comprising:

receiving, via a graphical user interface (GUI) of a spreadsheet application, the function call, the function call comprising:

a source string attribute, the source string attribute identifying a string;

a search string attribute, the search string attribute identifying a substring to be identified in the string;